

What is claimed is:

1. A dual balloon valve control accessory device designed for use with a stent delivery catheter comprising:

a bifurcated tubular member defining a first fluid line and a second fluid line, the
5 first fluid line comprising a proximal end adapted to connect to a source of inflation fluid
and a distal end adapted to connect to a main shaft of a bifurcated catheter, and the
second fluid line comprising a proximal end and a distal end adapted to connect to a
sidebranch shaft of the bifurcated catheter, the sidebranch fluid line being in fluid
communication with the first fluid line at a bifurcation point located at the proximal end
10 of the sidebranch fluid line.

2. The dual balloon valve control accessory of claim 1, additionally
comprising a finger grip disposed about the bifurcation point adapted to make the
accessory easier to hold.

3. The dual balloon valve control accessory of claim 1, additionally
comprising a one-way stopcock disposed about the first fluid line between its proximal
end and its distal end and adapted to control the flow of fluid through the first fluid line.

4. The dual balloon valve control accessory of claim 1, additionally
comprising a one-way stopcock disposed about the second fluid line between its proximal
and distal ends, and adapted to control the flow of fluid through the second fluid line.

5. The dual balloon valve control accessory of claim 1, additionally comprising:

a first one-way stopcock disposed about the second fluid line and adapted to control the flow of fluid through the second fluid line; and

5 a second one-way stopcock disposed about the first fluid line and adapted to control the flow of fluid through the first fluid line.

6. The dual balloon valve control accessory of claim 1, additionally comprising a three-way stopcock disposed about the bifurcation point and adapted to control the flow of fluid through the first fluid line and the second fluid line.

7. The dual balloon valve control accessory of claim 1, additionally comprising a pressure indicator disposed about the first fluid line.

8. The dual balloon valve control accessory of claim 1, additionally comprising a pressure indicator disposed about the second fluid line.

9. The dual balloon valve control accessory of claim 1, additionally comprising a first pressure indicator disposed about the first fluid line and a second pressure indicator disposed about the second fluid line.

10. A system for delivering a bifurcated stent comprising:
a bifurcated tubular member defining a first fluid line and a second fluid line,

the first fluid line comprising a proximal end adapted to connect to a source of inflation fluid and a distal end adapted to connect to a main shaft of a bifurcated catheter, and the second fluid line comprising a proximal end and a distal end adapted to connect to a sidebranch shaft of a bifurcated catheter, the second fluid line being in fluid communication with the first fluid line at a bifurcation point located at the proximal end of the second fluid line;

a bifurcated elongate catheter member including a main shaft having a distal end and a proximal end connected to the distal end of the main fluid line of the valve control accessory, and a sidebranch shaft having a proximal end connected to the distal end of the sidebranch fluid line;

a first balloon disposed about a distal region of the main shaft and in fluid communication with the first fluid line via a first inflation lumen;

a second balloon disposed about a distal region of the main shaft and in fluid communication with the second fluid line via a second inflation lumen;

a first portion of a stent disposed about the first balloon; and
a second portion of a stent disposed about the second balloon.

11. The system of claim 10, additionally comprising a finger grip disposed about the bifurcation point adapted to make the accessory easier to hold.

12. The system of claim 10, additionally comprising a one-way stopcock disposed about the first fluid line between its proximal end and its distal end and adapted to control the flow of fluid through the first fluid line.

13. The system of claim 10, additionally comprising a one-way stopcock disposed about the second fluid line between its proximal and distal ends, and adapted to control the flow of fluid through the second fluid line.

5

14. The system of claim 10, additionally comprising a first one-way stopcock disposed about the first fluid line and adapted to control the flow of fluid through the first fluid line and a second one-way stopcock disposed about the second fluid line and adapted to control the flow of fluid through the second fluid line.

10

15. The system of claim 10, additionally comprising a three-way stopcock disposed about the bifurcation point and adapted to control the flow of fluid through the first fluid line and the second fluid line.

15

16. The system of claim 10, additionally comprising a pressure indicator disposed about the first fluid line.

17. The system of claim 10, additionally comprising a pressure indicator disposed about the second fluid line.

20

18. The system of claim 10, additionally comprising a first pressure indicator disposed about the first fluid line and a second pressure indicator disposed about the second fluid line.

19. A pressure indication device for use in a dual balloon/dual inflation path
stent delivery catheter comprising:

an elongate member having a proximal end and a distal end, and defining a lumen

5 therethrough;

a housing component having a base, a hollow interior, and at least one side
surface,

an elastomeric component having a projection and being contained within the
housing component and secured to it, and capable of being deformed when contacted by

10 a elastomeric diaphragm;

an opening in the base of the housing component in fluid communication with the
lumen of the elongate member;

an elastomeric diaphragm disposed within the housing component and secured to
it; the diaphragm covering the opening to the lumen of the elongate member such that
15 fluid from the lumen is prevented from entering the interior of the housing component,
the diaphragm capable of deformation when under pressure from fluid in the lumen such
that it contacts the elastomeric component;

a cap covering the top of the housing component and being secured to it, the
shield having an opening to the interior of the housing component, such that the
20 projection of the elastomeric component protrudes out of the opening when contacted by
the elastomeric diaphragm.